

## ABSTRACT OF THE DISCLOSURE

A body temperature detector is particularly suited to axillary temperature measurements of adults. The radiation sensor views a target surface area of the body and electronics compute an internal temperature of the body as a function of ambient temperature and sensed surface temperature. The function includes a weighted difference of surface temperature and ambient temperature, the weighting being varied with target temperature to account for varying perfusion rate. Preferably, the coefficient varies from a normal of about .13 through a range to include .09. The ambient temperature used in the function is assumed at about 80°F but modified with detector temperature weighted by 20%.